



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,494	10/14/2003	Herman P. Miller III	A-70239-1	3540
40461	7590	12/15/2004	EXAMINER	
EDWARD S. WRIGHT 1100 ALMA STREET, SUITE 207 MENLO PARK, CA 94025			PRINCE, FRED G	
			ART UNIT	PAPER NUMBER
			1724	
DATE MAILED: 12/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,494

Applicant(s)

MILLER, HERMAN P.

Examiner

Fred Prince

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 2-3, 5-6, 8, and 11 are objected to because of the following informalities:
In line 1 of each claim, --is-- should be inserted after "feedstock". Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morrison (US Pat No 4,372,856).

Morrison teaches means for producing a gaseous substance with at least two components (300), means for separating the components (500; col. 2, lines 3-6), means for utilizing the components, including diffusion into a liquor (col. 2, lines 25-34), and means for pumping the liquor (75).

The "system" recited in claims 13-15 is interpreted by the examiner as defining an apparatus. As such, in order for terms in the claim to be given patentable weight, the

Art Unit: 1724

terms must add structure to the apparatus. Further, process limitations, functional language and recitations of intended use that do not add structure are not given patentable in apparatus claims. Accordingly, the limitations that the means for utilizing the components is provided "to control the rate of digestion in the system", "the rate of digestion is determined by controlling the pH in the system", and means for pumping the liquor "to mix the liquor and the gaseous substance" are not given patentable weight as the limitations do not add structure to the apparatus as the limitations relate to process limitations, functional language and recitations of intended use.

If it is applicant's position that the limitations add structure to the claim, it is submitted that the apparatus is capable of being used to perform the recited function(s).

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dague (US Pat No 5,185,079) in view of Namikoshi et al. (JP 56-168894).

Dague discloses a system and process including a retort vessel (Fig. 1), a space above a liquor level (Fig. 1), means for maintaining a vacuum pressure in the space (col. 7, lines 1-24), means for introducing feedstock into the vessel at a thermophilic temperature (Fig. 1; col. 7, lines 28-32), and Dague discloses the desirability of mixing the liquor (abstract). Dague does not disclose adding feedstock to vessel via the recited means to obtain the desired result.

Namikoshi et al. disclose a means for adding pressurized feedstock having the recited positioning relative to the liquid surface in order to break up scum, mixing the liquor, and improve the efficiency of methane production (abstract).

Art Unit: 1724

It would have been obvious for the skilled artisan to have modified the system and process of Dague by utilizing a means for adding pressurized feedstock having the recited positioning relative to the liquid surface in order to break up scum, mixing the liquor, and improve the efficiency of methane production, as suggested by Namikoshi et al.

The "systems" recited in claims 1, 4, 7, and 10 are interpreted by the examiner as defining an apparatus. The limitation that the means for introducing feedstock have the recited position and function is given patentable weight, as the examiner believes that the position and operational elements necessarily add structure to the apparatus as the liquor must impact the surface of the liquor.

Per claims 3, 6, 8, and 11, Dague does not disclose the recited pressure. It is submitted that it is well within the purview of the skilled artisan to utilize a desired pressure in order to ensure that the scum layer is sufficiently broken up. Further, it is noted that the record does not show, e.g., by comparative test data, that the instant invention provides any new and unexpected result by utilizing the recited pressures. Absent such a showing, the exact pressure is deemed to be an obvious matter of choice in design, insufficient to patentably distinguish the claims over the prior art.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References are cited of interest to show the state of the art.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Prince whose telephone number is (571) 272-

Art Unit: 1724

1165. The examiner can normally be reached on Monday-Thursday, 6:30-4:00; alt. Fridays 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Fred Prince
Primary Examiner
Art Unit 1724

fgp
12/6/04